Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-28. (canceled)

29. (new) A tyre for a vehicle wheel, comprising:

a carcass structure;

at least one annular reinforcing structure;

a tread band; and

a pair of sidewalls;

wherein the carcass structure comprises:

at least one carcass ply;

wherein each carcass ply comprises:

a plurality of elongated elements;

wherein the elongated elements are disposed in a substantially U-shaped conformation around a cross-section profile of the tyre,

wherein each elongated element comprises:

two side portions at mutually-spaced-apart positions in an axial direction; and

a crown portion that extends at a radially external position between the side portions;

wherein the at least one annular reinforcing structure is associated with the carcass structure at the side portions of the elongated elements,

wherein the at least one annular reinforcing structure comprises:

at least one bead core;

wherein a fraction of the elongated elements is turned up around the at least one bead core,

wherein the tread band is disposed radially external to the carcass structure, and

wherein the sidewalls are disposed at axially opposite positions on the carcass structure.

30. (new) The tyre of claim 29, wherein the at least one annular reinforcing structure comprises:

a first bead core; and

a second bead core;

wherein the first bead core is disposed axially internal to the at least one carcass ply, and

wherein the second bead core is disposed axially external to the at least one carcass ply.

31. (new) The tyre of claim 30, wherein the fraction of the elongated elements is turned up around the first bead core.

32. (new) The tyre of claim 30, wherein the fraction of the elongated elements is turned up around the second bead core.

33. (new) The tyre of claim 30, wherein the fraction of the elongated elements is turned up around the first and second bead cores.

34. (new) The tyre of claim 30, wherein a carcass ply stretch interposed between the first and second bead cores has a cross-section profile with a length greater than or equal to 15 mm and less than or equal to 70 mm.

35. (new) The tyre of claim 30, wherein the at least one annular reinforcing structure further comprises:

a third bead core disposed axially external to the second bead core.

36. (new) The tyre of claim 29, wherein the fraction of the elongated elements is less than or equal to about 50% of an overall number of the elongated elements.

37. (new) The tyre of claim 29, wherein ends of at least two of the turned-up elongated elements lie in different planes.

38. (new) The tyre of claim 29, wherein the tyre further comprises:

at least one reinforcing edge;

wherein the at least one reinforcing edge is axially external, radially external, or axially and radially external to a respective annular reinforcing structure.

39. (new) The tyre of claim 29, wherein the elongated elements comprise strip elements.

40. (new) The tyre of claim 39, wherein the strip elements comprise at least two lengths different from each other.

41. (new) The tyre of claim 39, wherein the strip elements comprise a same length.

42. (new) A method of manufacturing a tyre for a vehicle wheel, comprising:

preparing a plurality of elongated elements;

disposing each elongated element on a toroidal support;

applying at least one bead core at a region close to side portions of the elongated elements; and

turning up ends of a fraction of the elongated elements around the at least one bead core;

wherein the tyre comprises:

a carcass structure;

at least one annular reinforcing structure;

a tread band; and

a pair of sidewalls;

wherein the carcass structure comprises:

at least one carcass ply;

wherein the elongated elements are coated with at least one layer of elastomer material,

wherein the elongated elements are disposed in a substantially U-shaped conformation around a cross-section profile of the toroidal support,

wherein each elongated element comprises:

two side portions at mutually-spaced-apart positions in an axial direction; and

a crown portion that extends at a radially external position between the side portions;

wherein the at least one annular reinforcing structure comprises:

the at least one bead core;

wherein a fraction of the elongated elements comprise an end at a radially more internal position than the at least one bead core,

wherein the tread band is disposed radially external to the carcass structure, and

wherein the sidewalls are disposed at axially opposite positions on the carcass structure.

43. (new) The method of claim 42, wherein turning up ends of the fraction of the elongated elements is preceded by disposing at least one first bead core and at least one second bead core,

wherein the at least one first bead core is disposed axially internal to the at least one carcass ply, and

wherein the at least one second bead core is disposed axially external to the at least one carcass ply.

44. (new) The method of claim 43, wherein turning up the ends of the fraction of the elongated elements is carried out subsequent to disposing a layer of reinforced polymeric material axially external to the at least one second bead core.

45. (new) The method of claim 43, wherein the ends of the fraction of the elongated elements are turned up around the at least one first bead core.

46. (new) The method of claim 43, wherein the ends of the fraction of the elongated elements are turned up around the at least one second bead core.

47. (new) The method of claim 43, wherein the ends of the fraction of the elongated elements are turned up around the at least one first and second bead cores.

48. (new) The method of claim 43, wherein turning up the ends of the fraction of the elongated elements is carried out in at least two steps,

wherein two of the steps are separated by disposing a filler in an axially external position to an axially external edge of the at least one second bead core, and

wherein the ends of the elongated elements turned-up during a second step lie in offset planes relative to the ends of the elongated elements turned up during a first step.

49. (new) The method of claim 43, wherein turning up the ends of the fraction of the elongated elements is followed by disposing a third bead core at an axially external position to the at least one second bead core.

50. (new) The method of claim 42, wherein during preparing the plurality of elongated elements, a continuous ribbon element is cut into strip elements, and

wherein the elongated elements comprise the strip elements.

51. (new) The method of claim 50, wherein the strip elements comprise at least two lengths different from each other.

52. (new) The method of claim 50, wherein the strip elements comprise a same length.

53. (new) The method of claim 50, wherein disposing each elongated element on the toroidal support is carried out by laying strip elements of different length symmetrically with each other relative to an equatorial plane of the toroidal support.

54. (new) The method of claim 50, wherein disposing each elongated element on the toroidal support is carried out by laying strip elements of a same length asymmetrically relative to an equatorial plane of the toroidal support.

55. (new) The method of claim 54, wherein disposing each elongated element on the toroidal support is carried out by further laying at least one strip element of shorter length symmetrically relative to the equatorial plane of the toroidal support.

56. (new) The method of claim 50, wherein during preparing the plurality of elongated elements, the strip elements are submitted to necking-down.

57. (new) The method of claim 42, wherein the at least one bead core is obtained by winding a plurality of coils of metal wire disposed in radial superposition and axial side-by-side relationship with each other.

58. (new) The method of claim 42, further comprising:

disposing at least one reinforcing edge axially external, radially external, or axially and radially external to a respective annular reinforcing structure.